



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,224	02/01/2001	Paul E. Nikolich	100.166US01	9058

7590 08/28/2003  
Fogg, Slifer & Polglaze, P.A.  
P. O. Box 581009  
Minneapolis, MN 55458-1009

EXAMINER

LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
----------	--------------

2611

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/775,224

Applicant(s)

NIKOLICH, PAUL E.

Examiner

Hunter B. Lonsberry

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,574,797 to Naegeli.

Regarding claims 1 and 3-6, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal, narrow bandwidth detector 208 examines the signal for noise and then transmits downstream a control command to the cable modem to switch to an alternate upstream channel if the noise level exceeds a certain threshold (column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, column 10, line 35-column 12, line 10).

Regarding claim 2, Naegeli discloses the use of DOCSIS (column 12, line 64-column 13, line 1).

Regarding claims 7, 11, and 12, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal, narrow bandwidth detector 208 examines the signal for

noise and then transmits downstream a control command to the cable modem to switch to an alternate upstream channel if the noise level exceeds a certain threshold (Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, column 10, line 35-column 12, line 10).

Regarding claims 8-10, Naegeli discloses in Figure 3 a narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel (column 9, line 56-coumn 14, line 60).

Naegeli's cable modems inherently utilizes ports which are adapted to transmit the informational upstream signal and receive the control signal as Naegeli discloses in figure 2, that cable modem 120 is coupled to the headend 102 via the HFC network.

Regarding claim 13-20, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel. (Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, (column 9, line 56-coumn 14, line 60). Naegeli's cable modems

inherently utilizes ports which are adapted to transmit the informational upstream signal and receive the control signal as Naegeli discloses in figure 2, that cable modem 120 is coupled to the headend 102 via the HFC network.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,574,797 to Naegeli.

Regarding claims 21-27, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel.

(Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, (column 9, line 56-coumn 14, line 60). Naegeli does not disclose transmitting a signal to a cable modem to sequentially enable or disable a number of lines. The examiner takes official notice that it is well known in the art for an

Art Unit: 2611

administrator at a network operations center to selectively enable and disable links in a network via a modem. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Naegeli to situate a modem in a fibre node in order to selectively enable and disable a link in order to route around a failure on a network.

Regarding claims 28-31, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel.

(Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, (column 9, line 56-coumn 14, line 60). Naegeli does not disclose transmitting a signal to a cable modem to sequentially enable or disable a number of lines. The examiner takes official notice that it is well known in the art for an administrator at a network operations center to selectively enable and disable links in a network via a modem. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Naegeli to situate a modem in a fibre node in order to selectively enable and disable a link in order to route around a failure on a network.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,588,016 to Chen: Method and Apparatus for Locating a Faulty Component in a Cable Television System Having Cable Modems.

U.S. Patent 6,166,760 to Kay: Ingress Noise Measuring Device in Data Communication Network Using CATV Network.


U.S. Patent 6,377,782 to Bishop: Method and Apparatus for Communication Between a Client Device and a Linear Broadband Network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5359 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

HBL  
August 20, 2003

  
ANDREW FAILE  
SUPERVISORY EXAMINER  
TECHNICAL STAFF